

## Datasheet: HCA053

**BATCH NUMBER 0414**

<b>Description:</b>	HUMAN ANTI Ki67
<b>Specificity:</b>	Ki67
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	AbD02531_h/m_IgG1
<b>Isotype:</b>	HuCAL/mouse IgG1 Fc
<b>Quantity:</b>	0.1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			0.2 ug/ml - 1.0 ug/ml
ELISA	▪			2.0 ug/ml
Western Blotting	▪			
Immunofluorescence	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

**(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.**

### Target Species

Human

### Species Cross Reactivity

Based on sequence similarity, is expected to react with: Bovine, Macaque, Dog, Chimpanzee, Rhesus Monkey

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

### Product Form

Chimeric human-mouse IgG1 antibody selected from the HuCAL® phage display library

and expressed in a human cell line. The antibody has variable regions of human origin and an Fc portion (including CH1 and CL domains) from mouse IgG1. It can be detected by anti mouse Fc specific secondary antibodies. This antibody is supplied liquid.

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**Preparation** Purified IgG prepared by affinity chromatography on Protein A

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**Buffer Solution** Phosphate buffered saline

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**Preservative Stabilisers** 0.01% Thiomersal

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**Approx. Protein Concentrations** IgG concentration 0.5 mg/ml

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**Immunogen** Peptide derived from the human Ki67 protein, sequence GFKELFQTPG, coupled via a C-terminal cysteine to carrier proteins

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**External Database Links**

**UniProt:**

[P46013](#)

[Related reagents](#)

**Entrez Gene:**

[4288](#)

MKI67

[Related reagents](#)

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**RRID** AB\_915348

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**Specificity**

**Human anti Ki67 antibody, clone AbD02531** recognizes the Ki67 cell-cycle associated protein. Ki67 is expressed in proliferating cells but not in quiescent cells. Expression of this antigen occurs preferentially during late G1, S, G2, and M phases of the cell cycle, while in cells in G0 phase the antigen cannot be detected. Consequently, Ki-67 antigen expression is used in tumor pathology to detect proliferating cells in neoplastic diseases. In cultured cells, Ki-67 is expressed in the nucleolus of interphase cells. The Ki67 gene contains 15 exons. The Ki67 repeat region, within which there is a 22-amino acid Ki67 motif, is encoded by exon 13. The shorter isoform lacks exon 7. Northern blot analysis reveals multiple transcripts ranging from approximately 8.9 to 12.5 kb in proliferating but not quiescent cells. Immunoblot analysis shows expression of 320 and 359 kDa proteins. Antisense oligonucleotides inhibit cellular proliferation in a dose-dependent manner, suggesting that Ki67 protein expression may be an absolute requirement for cell proliferation.

Within cells Ki67 is predominantly localized in the G1 phase in the perinucleolar region, in the later phases it is also detected throughout the nuclear interior, being predominantly localized in the nuclear matrix. In mitosis, it is present on all chromosomes.

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**Histology Positive Control Tissue**

Human tonsil

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**References**

1. Jarutat, T. *et al.* (2006) Isolation and comparative characterization of Ki-67 equivalent antibodies from the HuCAL phage display library. [Biol. Chem. 387: 995-1003.](#)

2. Liu, S.K. *et al.* (2011) Delta-like ligand 4-notch blockade and tumor radiation response. [J Natl Cancer Inst. 103 \(23\): 1778-98.](#)

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<b>Storage</b>	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	Sold under license of U.S. Patents 6753136, 7785859 and 8273688 and corresponding patents. This antibody was developed by Bio-Rad, Zeppelinstr. 4, 82178 Puchheim, Germany.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10094 available at: <a href="https://www.bio-rad-antibodies.com/SDS/HCA05310094">https://www.bio-rad-antibodies.com/SDS/HCA05310094</a>
<b>Licensed Use</b>	For <i>in vitro</i> research purposes only, unless otherwise specified in writing by Bio-Rad.
<b>Regulatory</b>	For research purposes only
<b>Technical Advice</b>	Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the <a href="#">HuCAL Antibodies Technical Manual</a>

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Human IgG F(ab')<sub>2</sub> (0500-0099...) [HRP](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
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